UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/538,245	06/07/2005	David Feifel	00015-067US1/SD2003-090-1	3580

26138 7590 11/12/2008

Joseph R. Baker, APC
Gavrilovich, Dodd & Lindsey LLP
4660 La Jolla Village Drive, Suite 750
San Diego, CA 92122

EXAMINER	
DUTT, ADITI	

ART UNIT	PAPER NUMBER
1649	

MAIL DATE	DELIVERY MODE
11/12/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/538,245	FEIFEL, DAVID	
	Examiner	Art Unit	
	Aditi Dutt	1649	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *29 September 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *15-18,22 and 24-26* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *15-18,22 and 24-26* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. Applicant's amendments filed 29 September 2008 have been entered. The finality of the Final Rejection mailed 4 April 2008 has been withdrawn. This action is a Non-final Office Action.

2. All pending rejections and/or objections are withdrawn in view of applicant's arguments and amendments filed 29 September 2008. Although Examiner had indicated that claims 15-18, 22, 24-26, are allowable, on further consideration and secondary search, following new grounds of rejection are presented. Examiner apologizes for any inconvenience caused.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor

and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 15-16, 18, 22, 24 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hertel et al. (Eur J Pharmacol 422: 77-81, 2001), in view of Feifel et al. (Brain Res 760: 80-84, 1997).

5. The claims are drawn to a method for increasing sensorimotor gating or inhibiting serotonin-2A and/or alpha-1 receptor mediated neural function in a subject having a bipolar disease, anxiety disease or depression, comprising the administration of NT69L, alone or in combination with other psychotropic drugs, to improve symptoms of the disorder (claims 15-16, 22, 24). The claims further recite the administration of NT69L via various routes such as parenteral, topical, subcutaneous, etc. (claims 18 and 26).

6. Hertel et al. teach that an acute subcutaneous (s.c.) injection of NT69L in rats reverses the psychotropic drug amphetamine induced hyperactivity (page 79, Results Section 3.4, Figure 2B). The reference further teaches that NT69L, a potent analogue of the biologically active fragment of native neurotensin, exhibits high affinity to human and rat neurotensin receptors because of the novel amino acid L-neo-tryptophan at position 11 and has a low susceptibility to peptidase degradation (pages 79-80, Discussion, para 1).

7. Hertel et al. do not teach the effect of NT69L on sensorimotor gating or

prepulse inhibition (PPI).

8. Feifel '97 teach that neurotensin administration in the nucleus accumbens of rats resulted in increased PPI and blocked the amphetamine induced disruption of PPI, the operational measure of sensorimotor gating in a dose-dependent manner. Additionally, the reference also teaches that neurotensin infusion in the nucleus accumbens inhibit amphetamine-induced hyper-locomotion (abstract; Figure 1, 3).

9. Since the instant specification teaches that reduced PPI of the acoustic startle response is a symptom that is inherently an abnormality of sensorimotor gating (page 2, para 0005-0006), and further teaches that serotonin-2A receptor agonists inherently induce reduced PPI, similar to that observed in schizophrenia (page 8, para 0028), the limitations of the claimed inventions are inherent.

10. It would have been obvious to the person of ordinary skill in the art at the time the claimed invention was made to modify the use of NT69L for reversing amphetamine induced hyperactivity as taught by Hertel et al. by using NT69L (a neurotensin agonist) for increasing reduced PPI as taught by Feifel et al. The person of ordinary skill in the art would have been motivated to substitute neurotensin for NT69L for increasing sensorimotor gating or PPI because amphetamine induces hyperlocomotion, hyperactivity and disrupted or reduced PPI. Additionally, Feifel et al teach that neurotensin analogues can block the effects of amphetamine that can be used as potential antipsychotic agents for treating pathology associated with diseases like schizophrenia (page 80,

Introduction, abstract). Since antipsychotics like neurotensin can restore abnormal PPI associated with many psychiatric disorders, this ability corresponds to their clinical potency (Feifel et al, page 80). The person of ordinary skill in the art would have expected success because the use of antipsychotics in the facilitation of baseline PPI was known in the art at the time the invention was made.

11. Thus, the claimed invention as a whole was *prima facie* obvious over the combined teachings of the prior art.

12. Claims 15-17 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hertel et al. (Eur J Pharmacol 422: 77-81, 2001), and Feifel et al. (Brain Res 760: 80-84, 1997), in view of Costa et al. (Eur J Pharm 428: 97-103, 2001).

13. Claims 17 and 25 further teach the administration of a compound selected from the group consisting of levocobastine, SR48692 and SR142948.

14. The teachings of Hertel et al. and Feifel et al. are set forth above.

15. Hertel et al. or Feifel et al. do not teach further administration of a compound selected from levocabastine, SR48692 and SR142948.

16. Costa et al. teach that i.p. administration of the neurotensin receptor antagonist SR48692 decreased the locomotor activity induced by amphetamine in mice (Figures 1-3; abstract).

17. Neither the combination of Hertel et al. and Feifel et al., nor Costa et al. teach a process for increasing sensorimotor gating in a subject having the claimed disorders by administration of NT69L or NT69L plus psychotropic drug (e.g. amphetamine) and another compound, e.g. SR48692. However, in the absence of unexpected results, it would have been *prima facie* obvious to one of ordinary skill in the art to combine the teachings of the references and to administer NT69L or NT69L plus amphetamine along with SR48692. Each of the compounds, NT69L and the NT2 receptor antagonist SR48692 had been taught by the prior art to reduce or inhibit amphetamine induced behavior and thus behave as antipsychotic compounds. Furthermore, Costa et al. teach that the selection of SR48692 could be potentially clinically useful in the treatment of neuropsychiatric disorders (page 102, concluding para). The instant situation is amenable to the type of analysis set forth in In re Kerkhoven,205 USPQ 1069 (CCPA 1980) wherein the court held that it is *prima facie* obvious to combine two compositions each of which is taught by the prior art to be useful for the same purpose in order to for a third composition that is to be used for the very same purpose since the idea of combining them flows logically from their having been individually taught in the prior art. Applying the same logic to the instant process claims, given the teaching of the prior art of processes using the administration of NT69L or SR48692 individually for inhibiting amphetamine induced hyperactivity, thereby implicating an usefulness in neuropsychiatric conditions, it would have been obvious to administer to a subject both NT69L and SR489692, because the

idea of doing so would have logically followed from their having been individually taught in the prior art to be useful as antipsychotic compounds for the same purpose of in neuropsychiatric diseases, for example as in the claimed invention. One of ordinary skill in the art would have reasonably expected to obtain the claimed effect of increasing sensorimotor gating upon administration of either or both of these neurotensinergic compounds since both had been implicated for clinical usefulness in neuropsychiatric disorders in the prior art.

18. Thus, the claimed invention as a whole was *prima facie* obvious over the combined teachings of the prior art.

Conclusion

19. No claim is allowed

20. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aditi Dutt whose telephone number is (571) 272-9037. The examiner can normally be reached on Monday through Friday, 9:00 a.m. to 5:00 p.m.

21. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey Stucker, can be reached on (571) 272-0911. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

22. Information regarding the status of an application may be obtained from

the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov/>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AD
28 October 2008

/Jeffrey Stucker/

Supervisory Patent Examiner, Art Unit 1649